

U.S. Patent Application Serial No. **10/523,034**
Response filed May 7, 2007
Reply to OA dated February 8, 2007

REMARKS

Claims 1-13 are pending in this application. Claims 5, 10 and 12 have been canceled without prejudice or disclaimer, and claims 1-4 and 7-9 have been amended herein. Upon entry of this amendment, claims 1-4, 6-9, 11 and 13 will be pending. Minor amendments are also made to the specification.

The applicant respectfully submits that no new matter has been added. Support for the amendments is detailed below. It is believed that this Amendment is fully responsive to the Office Action dated **February 8, 2007**.

Regarding the specification amendments

The specification has been amended on pages 4-9 to avoid referring to the claims by number in the description portion of the specification. The term "Claim 1" has been amended to --Aspect 1--, etc.

The paragraphs comprising Example 64 (page 53, lines 7-25) have been moved to the top of page 56. There is no change in the text of these paragraphs, and this amendment is made only for better readability of the specification, by placing Example 64 after Table 9.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. (Office action, paragraph no. 1)

The rejection is traversed in part and overcome in part by the amendments to the claims.

The Examiner states that:

"Claims merely setting forth physical characteristics desired in an article and not setting forth specific compositions, which would meet such characteristics are invalid as vague and indefinite because they cover any conceivable combination of ingredients ... The claims are indefinite since they purport to cover everything which will perform the desired functions regardless of the composition"

citing *Ex parte Slob* (POBdApp) 157 USPQ 172 (1968).

This portion of the rejection is respectfully traversed. Applicant notes that the Examiner is somewhat vague in his remarks, and it is not clear specifically to which ingredients he is referring. In particular, the comments regarding ingredients "which might be discovered in the [future]" are unclear and do not appear to be related to issues of indefiniteness.

Applicant is not merely reciting compounds by their desired function. If the Examiner is referring to the term "flower thinning agent," Applicant submits that the recitation of "flower thinning agent" in the preamble is simply one stated utility of the present invention. The term "inorganic compound" is well understood in the art, and the scope of the term "inorganic compound of poor water solubility" is described on page 9, line 15, though page 10, line 13, of the specification. The scope of the term "additive" is described on page 21, lines 7 and ff. Withdrawal of this portion of the rejection is respectfully requested.

The Examiner further states that it is not clear to what the particle size and surface areas in the claims refer. This portion of the rejection is overcome by the amendments to the claims, clarifying that these parameters refer to the "flower thinning agent" of the preamble.

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The Examiner also notes that some of the claims do not end with a period. The claims have been amended to correct this.

The Examiner states that it is not clear where the pores are in claim 4. The rejection is overcome by the clarifying amendment to claim 4. Support for this amendment may be found on page 7, last paragraph, and page 18, lines 8-10, of the specification.

In addition, the claims have been amended to clarify the original recitations of claims 7-9, which were redundant in that the calcium phosphate is an inorganic compound of poor water solubility.

Claims 1-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 870,435. (Office action paragraphs no. 4-5)

The Examiner cites EP '435 for disclosing a composition containing a water insoluble mineral (page 4, line 51 and ff.) and additives that can be lecithin, organic acid esters, or surfactant. The Examiner cites page 6, lines 16-25, as disclosing that the particle size is 0.2 μm or less.

The Examiner states that EP '435 does not disclose the BET specific surface area, or that the material in the reference meets the other limitations of the present claims, but that "it is reasonable to presume that the compositions of EP '435 would satisfy the equations set forth in the claims."

The rejection is respectfully traversed. Applicant notes that the anticipation portion of the rejection is based on the concept of "inherency," and notes that MPEP 2112 states, in part:

"The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) ..."

In traversing the rejection, Applicant first submits that the Examiner has not presented a proper basis in fact and/or technical reasoning for the inherency rejection. In this regard, Applicant notes the following points about the present invention relative to that of EP '435:

EP 870,435 discloses a mineral-containing composition comprising enzymatically decomposed lecithin and a water-insoluble mineral. The purpose of the reference is to provide a mineral composition having excellent dispersibility, particularly excellent dispersibility in water phase, and food comprising the same.

The reference relates to a mineral-containing composition and the objects of the reference are mentioned on page 2, lines 50-55, reading:

"Objects of the present invention are to provide a mineral composition having high thermal stability and excellent dispersibility without requiring large amounts of crystalline cellulose or fats and oils to be added to the water-soluble mineral, and food comprising the same.

Another objects of the present invention are to provide a mineral composition having high absorptivity when taken intracorporeally, substantially no coloration,

odors, flavors, low reactivity with other ingredients in food, and small irritation against mucous membranes of digestive tracts, and food comprising the same."

The role of the enzymatically decomposed lecithin is mentioned on page 3, lines 34-40, reading:

"Any of those enzymatically decomposed lecithins have a surface activity, and its hydrophilic group moiety also similarly has a phosphate group, so that adsorption coating strength of surfaces of the water-insoluble mineral is remarkably strong as compared to nonionic surfactants such as sucrose esters of fatty acids and glycerol esters of fatty acids. Therefore, an adsorption interfacial layer of thermally stable, enzymatically decomposed lecithin is formed on the surfaces of fine particles of the water-insoluble mineral, and the adsorption interfacial layer is not peeled off when subjected to heat treatment, so that secondary agglomeration can be effectively inhibited. As a result, good dispersibility of the water-insoluble mineral can be obtained."

In contrast, the object of the present invention relates to a flower thinning agent.

The role of the additive including lecithin is to prevent pollination of a pistil and a stamen without medicine damage. Therefore, since the invention of EP '435 and the present invention are different in objects and uses, the roles of lecithin in the two inventions are essentially different from each other.

Given these different objects, uses, and roles of the ingredients, there is no basis for the assumption that the specific particle diameter and surface area limitations of the particles present claims would be met in EP '435.

Secondly, in EP '435, the particle size of the water-insoluble mineral is mentioned on page 6, lines 16-18, reading:

"The particle size of the water-insoluble mineral is not particularly limited. From the viewpoint of the dispersibility, it is desired that the particle size is **0.4 μm or less**, and it is more desired that 80 vol% or more of the particles of the entire particles have a particle size of 0.2 μm or less." (emphasis added)

In contrast, in the present invention the particle size P of the flower thinning agent is **0.03 to 30 μm** defined by the equation (a) of claim 1. These ranges overlap only between 0.03 to 0.4 μm , and only between 0.03 to 0.2 μm for the more desired range in the reference.

In addition, in the present invention the specific surfaces area Q is required to be 3 to 800 m^2/g , and further, the relationship between Q and P (Q/P) is required to be 0.5 to 1000. The surface area **does not appear to be discussed** in EP '435. There is no suggestion for the Q limitations of the present claims.

As noted above, since the present invention and EP '435 are different in uses, and in the roles and functions of the ingredients, the characteristics of the materials would naturally become different.

In particular, EP '435 mentions the use such as food, drugs, feeds, cosmetics and industrial products (page 7, line 1). As the industrial products, films for agricultural purposes, sheet materials for wall or floors, fire-proofing agents to be added to resins (page 7, lines 30-31). The product of EP '435 is generally to be dispersed in water phase, to be used in **food** (page 2, lines 5-7). This would probably result in a composition quite different in surface area characteristics from that of the present claims.

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None of these suggests the use of the present invention, and accordingly, there is no suggestion or motivation for modifying the P and Q parameters to have the values of the present invention.

Pending claims 1-4, 6-9 and 11 are therefore not anticipated by or obvious over EP 870,435.

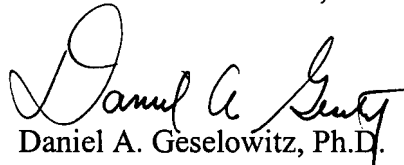
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP


Daniel A. Geselowitz, Ph.D.
Agent for Applicant
Reg. No. 42,573

DAG/ejb

Atty. Docket No. **050050**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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